Course unit English denomination	Basic Training in Bioethics
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Teacher in charge	VALTER GIANTIN
Teaching Hours	11
Number of ECTS credits allocated	2
Course period	November 2025 / March 2026
Course delivery method	☐ In presence ☐ Remotely ☒ Blended
Language of instruction	Italian
Mandatory attendance	☒ Yes (75% minimum of presence) ☐ No
Course unit contents	The course provides for the acquisition of basic knowledge in ethics, law, medical-legal aspects, and communication, which will help the professional to accompany people in the various clinical conditions that can be experienced during an illness, a history of treatment, or research in the clinical field. Through a culturally consolidated and professionally effective ethical approach, the foundations will be laid for appropriate bioethical management even in the most controversial clinical and experimental issues.
Learning goals	The purpose of this basic course in Bioethics is to lay the cultural foundations of what bioethics has been, is and will be in the near future, up to the new concepts of Global Bioethics and its relationship with Artificial Intelligence. The main goals are to enable participants to make the best use of their lived experiences as a basis for building an ethical, bioethical, deontological and legal re-interpretation. Through the elaboration of clinical cases, references to the ethical tradition, bioethical literature, the method of analysis of clinical cases and, enhancing the ethical codes of the various professions, participants will be put in the position to be able to make appropriate choices in their respective fields of action, with the following expected outcomes:

- ability to ethically elaborate an unknown story.
- knowing how to identify the space of bioethical issues in relation to practices and ethics.
- ability to reinterpret one's professional experience.
- comparison between the different emerging ethical elaborations.
- understanding of the ethical elaboration tools that are present at the Italian level and in the University.
- understanding of bioethical thought and elaboration.
- progressive entry into the space of bioethical elaboration.

Teaching methods	Frontal lessons for a total of 10.30 hours + 30 minutes for a final multiple-choice test. Individual study of at least 9 hours on the main international and national legislation and on the opinions of the National and/or Regional Ethics Committee with documentation provided during the lessons and/or sent by email.
Course on transversal, interdisciplinary, transdisciplinary skills	☐ Yes ☒ No
Available for PhD students from other courses	☐ Yes ☒ No
Prerequisites	
Examination methods	Learning assessment: multiple-choice test
Suggested readings	Main international and national legislation and opinions from international ethics committees and the National Bioethics Committee (CNB) and/or Regional Ethics Committee (CER), papers from international and national scientific literature, with documentation provided during lectures and/or sent via email (and Moodle)
Additional information	GIANTIN VALTER (Physician-Geriatrician and Clinical Bioethicist, Director of the Geriatrics Unit at Bassano del Grappa, former Adjunct Professor of Bioethics at the School of Specialization in Geriatrics at the University of Padua and of Geriatrics at the Nursing Degree Course at the University of Padua, Adjunct Professor at the Master's in Palliative Care at the University of Verona, President of various Ethics Committees for clinical practice, former Vice President of the Ethics Committee of the Padua Hospital-University, member of the Veneto Regional Commission for Palliative Care and Pain

Therapy, Adjunct Professor at the Regional Course for General Medicine training)

Course unit English denomination	**Advanced Laboratory Medicine: Clinical and Experimental Approaches**
SS	BIOS-09/A
Teacher in charge (if defined)	Dr. Paola Galozzi Dr. Ada Aita
Teaching Hours	10
Number of ECTS credits allocated	2
Course period	01/2026 – 03/2026
Course delivery method	☒ In presence ☐ Remotely ☐ Blended
Language of instruction	English
Mandatory attendance	☒ Yes (80% minimum of presence) ☐ No
Course unit contents	**1. Introduction to Laboratory Medicine** Importance in modern medicine Role in personalized care and screening Quality concepts and diagnostic error **2. Pre-analytical Phase** Patient identification, specimen collection, and transport Impact of pre-analytical variability on clinical and experimental outcomes Common errors and best practices **3. Analytical Phase** Laboratory tools and technologies in Dept. of Medicine (DIMED) Internal Quality Control (IQC) and performance evaluation Random/systematic errors, accuracy and precision **4. Post-analytical Phase** Data interpretation Communication and clinical impact **5. Final Research Project** - Students will be required to integrate the skills acquired during the course into their research project.

Learning goals	- To provide practical skills in the use of laboratory instruments for clinical and experimental analysis. - Develop critical skills for the interpretation of laboratory data in the clinical context. - Promote innovation and design of experimental studies, with a focus on advanced methods and techniques
Teaching methods	lectures, group work, case studies
Course on transversal, interdisciplinary, transdisciplinary skills	☒ Yes ☐ No
Available for PhD students from other courses	☒ Yes ☐ No
Prerequisites	none
Examination methods	Presentation of the final research project
Suggested readings	Course slides and other materials provided by the teachers
Additional information	Online lectures (on Moodle) for PhD students engaged in documented research and/or institutional activities abroad

Course unit English denomination	Programming for data manipulation
SS	IINF-05/A
Teacher in charge (if defined)	Sandro Savino
Teaching Hours	16
Number of ECTS credits allocated	3
Course period	November 2025 – February 2026
Course delivery method	☒ In presence ☐ Remotely ☐ Blended
Language of instruction	Italian
Mandatory attendance	☐ Yes (% minimum of presence) ☒ No
Course unit contents	Overview of Computer Operation: The Processor, Memory, Operating System, and Applications File Management: Files, Folders, Extensions, Textual and Binary Formats HTML Language PHP Language Programming and Debugging in PHP Input and Output in PHP and HTML
Learning goals	Main objective of the course is to provide researchers with concepts and IT tools to automate the laborious data preparation process. By learning programming, the user transitions from a user to a power user and can build simple programs that allow data processing in an automatic, repeatable, and controlled manner. In the course aims to develop these capabilities: Understand how to break down a problem into parts and describe it as an algorithm Be able to program an algorithm for data analysis Be able to program an algorithm for data filtering and normalization Design simple input and output interfaces in HTML and PHP

Be able to read and write files for data collection in various formats (textual and binary)
Manage files and folders (rename, copy, delete) automatically
Perform data matching of textual data from multiple sources

Teaching methods	Classroom lessons, homework, workshop
Course on transversal, interdisciplinary, transdisciplinary skills	☐ Yes ☒ No
Available for PhD students from other courses	☒ Yes ☐ No
Prerequisites	None
Examination methods	Learning assessment
Suggested readings	Course slides and other On-line materials
Additional information	Notebook needed

Course unit English denomination	In vivo models in translational research. Experimental diseases and methods
SS	MEDS-26/A
Teacher in charge (if defined)	Francesca Oliviero – Roberto Luisetto
Teaching Hours	5
Number of ECTS credits allocated	1
Course period	January 2026
Course delivery method	☐ In presence ☐ Remotely ☒ Blended
Language of instruction	Italian (english on demand)
Mandatory attendance	☒ Yes (80% minimum of presence) ☐ No
Course unit contents	Introduction to translational research and its role in modern medicine. Importance and controversies of animal experimentation in research. Principal animal models used in translational research. Most common experimental methods. Ethical and regulatory aspects of animal experimentation. Alternatives to animal experimentation. Practical applications of translational research in various medical fields. Design of ministerial research protocols.
Learning goals	Understand the concept and role of translational research. Identify and describe the main animal models used in translational research. Acquire in-depth knowledge of the most common experimental methods in animal research. Examine the ethical aspects of animal experimentation and understand the relevant regulatory framework. Explore and evaluate alternatives to animal experimentation, understanding their advantages and limitations. Develop skills in designing ethical and effective research protocols involving animal models.
Teaching methods	Classroom lectures

Course on transversal, interdisciplinary, transdisciplinary skills	☐ Yes ☒ No
Available for PhD students from other courses	☒ Yes ☐ No
Prerequisites	None
Examination methods	Evaluation test
Suggested readings	Material provided during classes
Additional information	

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Course unit English denomination	Science communication and knowledge valorization: practices and tools
SS	
Teacher in charge (if defined)	University of Padua / Venice International University – VIU
Teaching Hours	
Number of ECTS credits allocated	
Course period	
Course delivery method	☐ In presence ☐ Remotely ☐ Blended
Language of instruction	
Mandatory attendance	☐ Yes (% minimum of presence) ☐ No
Course unit contents	
Learning goals	
Teaching methods	
Course on transversal, interdisciplinary, transdisciplinary skills	☐ Yes ☐ No
Available for PhD students from other courses	☐ Yes ☐ No
Prerequisites (not mandatory)	
Examination methods	
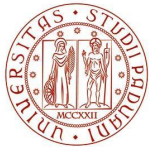
(if applicable)

Suggested readings

Additional information   Interdisciplinary teachings